

DATES

&

DATA

August 2

**Astronomy seminar:** The JSC Astronomy Seminar Club will meet at noon August 2, 9, 16 and 23 in Bldg. 31, Rm. 248A. For more information contact Al Jackson at x35037.

**Spaceteam Toastmasters meet:** The Spaceteam Toastmasters meet at 11:30 a.m. at United Space Alliance, 600 Gemini. For details contact Patricia Blackwell at (281) 280-6863.

August 3

**Communicators meet:** The Clear Lake Communicators, a Toastmasters International club, meet at 11:30 a.m. August 3, 10 and 17 at Wyle Laboratories, 1100 Hercules, Suite 305. For more information contact Allen Prescott at (281) 282-3281.

**Warning System Test:** The site-wide Employee Warning System performs its monthly audio test at noon. For more information contact Bob Gaffney at x34249.

August 7

**NSS meets:** The Clear Lake area chapter of the National Space Society meets at 6:30 p.m. at the Parker Williams Branch of the Harris Co. Library at 10851 Scarsdale Blvd. For more information contact Murray Clark at (281) 367-2227.

August 8

**Aero Club meets:** The Bay Area Aero Club meets at 7 p.m. at the Houston Gulf Airport clubhouse at 2750 FM 1266 in League City. For details contact Larry Hendrickson at x32050.

**NPMA meets:** The National Property Management Association meets at 11:30 a.m. at the Gilruth Center. For more information contact Ray Whitaker at (281) 212-6130.

August 9

**IAAP meets:** The Clear Lake/NASA chapter of the International Association of Administrative Professionals meets at 5:30 p.m. at Bay Oaks Country Club. Cost is \$16. For more information and reservations contact Tami Barbour at (281) 488-0055, x238.

OUT&ABOUT



**ON YOUR MARK:** Runners and walkers alike took over JSC the morning of Saturday, July 15, for the 22nd Annual Lunar Rendezvous 5k. Participants convened in the early morning to help raise funds to support Bay Area Museum, local student scholarships and other cultural and non-profit organizations in our area. Among the top finishers were JSC's Mark Anderson, Michael Root, Duane Ross, Daryl Schuck, and Lisa Spence. For more information on the Bay Area Running Club, contact Jay Lee at (281) 488-5583 or Mark Anderson at x30909 or visit <http://www.amtexpo.com/barc/>.

August 10

**Airplane club meets:** The Radio Control Airplane Club meets at 7 p.m. at the Clear Lake Park Building. For more information contact Bill Langdoc at x35970.

**MAES meets:** The Society of Mexican-American Engineers and Scientists meets at 11:30 a.m. in Bldg. 16, Rm. 111. For more information contact George Salazar at x30162.

August 11

**Astronomers meet:** The JSC Astronomical Society meets at 7:30 p.m. at the Center for Advanced Space Studies, 3600 Bay Area Blvd. For more information contact Chuck Shaw at x35416.

NASA BRIEFS

STATION LABORATORY PASSES VACUUM CHAMBER TEST

The U.S. Laboratory, Destiny, has successfully completed a series of milestone testing operations that move it closer to its final destination – space.

The 32,000-pound scientific research lab was the first International Space Station pressurized element to spend seven days in a renovated vacuum chamber last used when Americans walked on the moon. The 28-foot-long, 14-foot-wide laboratory was placed in the chamber July 1 to undergo the element leak test.

To perform the test, the laboratory was placed on the rotation and handling fixture inside the Operations and Checkout Building high bay at Kennedy Space Center, raised to vertical, lifted and moved to a point above the chamber, then lowered inside. Once the lid was lowered and secured, the chamber created a vacuum environment equivalent to 257,000 feet altitude or 48 miles to determine if the module had any leaks and confirm the rates at which gases were consumed.

The U.S. Laboratory has been designed to provide world-class, state-of-the art facilities to complete scientific research in zero gravity. There is space for 24 racks inside the module – 13 will be dedicated to scientific research and 11 will provide cooling water, power, and temperature and humidity control, as well as revitalization to remove carbon dioxide and replenish oxygen. During the early assembly missions, astronauts will manipulate the Canadian robotic arm from within the lab using an integrated video system that will receive live pictures from cameras positioned on the arm and on the station's structure.

Destiny is among more than 216,000 pounds of space station elements, including truss sections, that are being prepared for flight at KSC. The lab is scheduled to be launched on shuttle mission STS-98, the 5A assembly mission, targeted for January 2001. When fully assembled in 2004, the space station will house a crew of seven.

CHANDRA CAPTURES FLARE FROM BROWN DWARF

NASA's latest observatory, designed to see the most violent and stunning cosmic phenomena, captured something unexpected. The Chandra X-ray Observatory, orbiting in space about one-third of the way to the moon, saw the first-ever flare from what's known as a brown dwarf, or failed star.

The study of the bright X-ray flare will increase understanding of the explosive activity and origin of magnetic fields of extremely low-mass stars.

Chandra detected no X-rays at all from the object called LP 944-20 for the first nine hours of a 12-hour observation, and then the source flared dramatically before it faded away over the next two hours.

The energy emitted in the brown dwarf flare was comparable to a small solar flare, and was a billion times greater than observed X-ray flares from Jupiter. The flaring energy is believed to come from a twisted magnetic field.

Brown dwarfs have too little mass to sustain significant nuclear reactions in their cores. Their primary source of energy is the release of gravitational energy as they slowly contract. They are very dim – less than a tenth of a percent as luminous as the sun – and of great interest to astronomers because they are poorly understood and probably a very common class of objects intermediate between normal stars and giant planets.

Images associated with this release, including high-resolution digital versions of the X-ray image (JPG, 300 dpi TIFF), are available on the Internet at:

<http://chandra.harvard.edu> and <http://chandra.nasa.gov>

GILRUTH CENTER NEWS

Sign up policy:

All classes and athletic activities are on a first-come, first-served basis. Sign up in person at the Gilruth Center and show a yellow Gilruth or weight room badge. Classes tend to fill up two weeks in advance. Payment must be made in full, by cash or by check, at the time of registration. No registration will be taken by telephone. For more information, call x33345.

Gilruth badges:

Required for use of the Gilruth Center. Employees, spouses, eligible dependents, NASA retirees and spouses may apply for photo identification badges from 7:30 a.m.-9 p.m. Monday-Friday and 9 a.m.-2 p.m. Saturdays. Cost is \$12. Dependents must be between 16 and 23 years old.

Open from 6:30 a.m.-10 p.m. Monday-Thursday, 6:30 a.m.-9 p.m. Friday, and 9 a.m.-2 p.m. Saturday. Contact the Gilruth Center at (281) 483-3345. <http://www4.jsc.nasa.gov/ah/exceaa/Gilruth/Gilruth.htm>

**Nutrition intervention program:** Six-week program includes lectures, a private consultation with the dietitian and blood analysis to chart your progress. Program is open to all employees, contractors and spouses. For details call Tammie Shaw at x32980.

**Defensive driving:** One-day course is offered once a month at the Gilruth Center. Pre-registration required. Cost is \$25. Call for next available class.

**Stamp club:** Meets every second and fourth Monday at 7 p.m. in Rm. 216.

**Weight safety:** Required course for employees wishing to use the Gilruth weight room. Pre-registration is required. Cost is \$5. Annual weight room use fee is \$105. The cost for additional family members is \$58.

**Exercise:** Low-impact class meets from 5:15-6:15 p.m. Mondays and Wednesdays. Cost is \$24 for eight weeks.

**Step/bench aerobics:** Low-impact cardiovascular workout. Classes meet from 5:25-6:25 p.m. Tuesdays and Thursdays. Cost is \$40 for eight weeks.

**Yoga stretching:** Stretching class of low-impact exercises designed for people of all ages and abilities in a Westernized format. Meets Thursdays 5-6 p.m. Cost is \$40 for eight weeks. Call Darrell Matula, instructor, at x38520 for more information.

**Ballroom dancing:** Classes meet Thursdays from 6:30-7:30 p.m. for beginner, 8:30-9:30 p.m. for intermediate and 7:30-8:30 p.m. for advanced. Cost is \$60 per couple.

**Country and western dancing:** Beginner class meets 7-8:30 p.m. Mondays. Advanced class (must know basic steps to all dances) meets 8:30-10 p.m. Mondays. Cost is \$20 per couple.

**Fitness program:** Health-related fitness program includes a medical screening examination and a 12-week individually prescribed exercise program. For more information call Larry Wier at x30301.

**Aikido:** Martial arts class for men and women meets 5-6 p.m. Tuesdays and Wednesdays. No special equipment or knowledge is needed to participate. Aikido teaches balance and control to defend against an opponent without using strength or force. Beginning and advanced classes start each month. Cost is \$35 per month.